

Drought Status for April 2007

National Weather Service: Albuquerque, NM

...Short term drought is spreading into far west central New Mexico from Arizona...

Discussion: March 2007 will likely be long remembered for the tornado outbreak that occurred on the 23rd in far eastern New Mexico. Both Logan and Clovis were hit hard by tornados that day, but many more eastern New Mexico locations received near record rainfall for the month largely from the showers and thunderstorms on the 23rd and into the early morning hours of the 24th.

Record or near record precipitation for March was noted at the following sites:

Amistad 5SSW	2.90 inches	Second highest March total since 1925,
Bitter Lake NWR	1.98 inches	Third highest March total since 1950,
Carlsbad	2.64 inches	Fourth highest March total since 1914,
Carlsbad Caverns	2.04 inches	Second highest March total since 1930,
Carlsbad Airport	2.63 inches	New March record since 1949 (old record 1.69/2004),
Clovis	3.19 inches	New March record since 1912 (old record 3.10/1926),
Clovis 13N	3.70 inches	New March record since 1950 (old record 3.06/1961),
Elida	2.39 inches	Second highest March total since 1916,
Fort Sumner 5S	2.06 inches	Second highest March total since 1948,
Jal	3.31 inches	New March record since 1943 (old record 1.76/1968),
Melrose	3.05 inches	Third highest March total since 1914,
Portales	3.17 inches	New March record since 1914 (old record 3.05/1926),
San Jon	2.81 inches	Second highest March total since 1914,
Tatum	2.85 inches	Third highest March total since 1919,
Tucumcari 4NE	3.03 inches	Fourth highest March total since 1905.

For the rest of the state, March was more dry than wet, while new record high temperatures occurred during the middle of the month nearly statewide.

Drought that has persisted in central and western Arizona has begun to spread east during the past month with areas of western Cibola County and western McKinley County receiving less than three tenths of an inch of precipitation during March. Gallup, El Morro National Monument, Fence Lake, Zuni, Quemado, and the Rice Park SNOTEL site (southwest of Thoreau at 8450 feet MSL) all received less than 30 percent of normal March precipitation. For the first three months of 2007, precipitation at Zuni and Gallup is 37 percent below normal.

Statewide, both water-year-to-date and 2007 calendar precipitation through March are a bit more than 20 percent above average. The Northwest Plateau climate division water-year-to-date precipitation is about 8 percent below average while the Northern Mountains climate division precipitation is less than 5 percent below average.

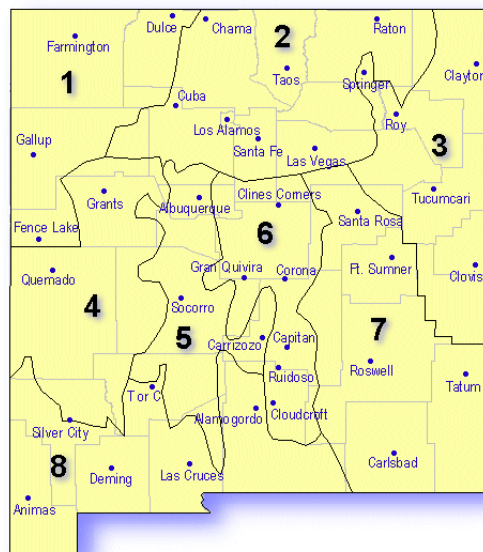
Long term drought due to multi-year precipitation deficits lingers over much of the northern mountains of New Mexico, even though water year 2007 (October 2006 through mid April 2007) precipitation at high elevation measuring sites (SNOTELs) throughout the Rio Grande Basin of northern New Mexico is 93 percent of normal.

One way to assess short and long term drought is to look at precipitation percentiles. Percentiles greater than 50 indicate that the area has been wetter than average. Percentiles less than 11 are usually associated with an "Emergency" drought designation in New Mexico. Percentiles from 11 to 20 are consistent with a "Warning" drought designation. The 21 to 30 percentiles are associated with an "Alert" designation, while the 31 to 40 percentile range is defined as an "Advisory" drought.

As of April 1, the lowest short-term (3 to 6 months) percentiles are for the first three months of 2007. Table 1 shows the Western Region Climate Center precipitation percentiles for each of the eight climate divisions in New Mexico (figure 1) for the January through March period and for the April 2001 through March 2007 (72 month) period.

Climate Division	January – March 2007 Precipitation Percentile and Departure from Normal	72 month Precipitation Percentile and Departure from normal
Northwest Plateau (1)	61 st percentile (+0.15 inches)	48 th percentile (-0.60 inches)
Northern Mountains (2)	48 th percentile (-0.15 inches)	14 th percentile (-8.90 inches)
Northeast Highlands (3)	92 nd percentile (+1.40 inches)	54 th percentile (+0.60 inches)
Southwest Mountains (4)	74 th percentile (+0.50 inches)	63 rd percentile (+2.75 inches)
Central Valleys (5)	73 rd percentile (+0.30 inches)	76 th percentile (+5.35 inches)
Central Highlands (6)	69 th percentile (+0.40 inches)	41 st percentile (-2.70 inches)
Southeast Plains (7)	98 th percentile (+2.15 inches)	66 th percentile (+3.85 inches)
Southern Desert (8)	72 nd percentile (+2.80 inches)	60 th percentile (+1.80 inches)

Table 1



(Figure 1) Climate Divisions in New Mexico

From Table 1, climate division 2 continues to show the most significant long term drought with an average precipitation percentile of 14 and an average precipitation deficit of nearly 9 inches. The current 3 month precipitation percentile of 48 for division 2 is also worse than last months 4 month percentile of 58. Current 3 month percentiles in divisions 1 and 4 are significantly improved from last months 4 month percentiles (38 and 60 respectively) even though areas along the western border of divisions 1 and 4 have received very little precipitation recently.

Long-range outlook: The latest ENSO (El Nino Southern Oscillation) discussion indicated that this past winters El Nino is long gone and the trend is towards a La Nina pattern emerging by this summer. La Nina is well correlated with drier than normal conditions in New Mexico, especially across the south, during the transition seasons of fall and spring. La Nina has a less clear correlation with New Mexico summer precipitation except in climate division 3, where summer rainfall during a La Nina episode averages about 20 percent below normal.

Calendar Year 2007 and Water Year 2007 (Oct thru Mar) Precipitation for New Mexico

National Weather Service Albuquerque, NM

2007 (January - March)

WY 2007 (Oct '06 through March '07)

<u>Location</u>	<u>Obs</u>	<u>Normal</u>	<u>%Normal</u>	<u>Obs</u>	<u>Normal</u>	<u>%</u> <u>Normal</u>	<u>SID</u>
<i>Northwest Plateau</i>							
AZTEC RUINS N/M	1.92	2.33	82%	4.77	4.94	97%	AZT
FENCE LAKE	2.38	3.02	79%	4.86	6.27	78%	FCK
FARMINGTON AG CTR	2.70	1.81	149%	5.39	4.03	134%	FAR
GALLUP FAA APRT	1.19	2.54	47%	4.16	5.32	78%	GUP
LINDRITH 2SE	4.08	3.17	129%	8.29	6.38	130%	LDR
NAVAJO DAM	2.50	3.23	77%	6.34	6.83	93%	BLN
<i>Northern Mountains</i>							
ALCALDE	1.89	1.21	156%	4.44	3.31	134%	ALC
CANJILON R/S	2.76	3.21	86%	6.29	6.38	99%	CJL
CERRO	1.16	1.90	61%	4.79	4.38	109%	CRR
CHAMA	5.13	5.50	93%	11.56	10.34	112%	CHM
CIMARRON 4SW	2.15	1.79	120%	6.97	3.95	176%	CPS
GHOST RANCH	1.90	1.96	97%	4.58	4.13	111%	AIQ
JEMEZ SPRINGS	2.68	2.94	91%	5.93	6.40	93%	JEM
JOHNSON RANCH	1.90	2.00	95%	4.54	4.40	103%	CUB
LAS VEGAS FAA APRT	1.02	1.36	75%	3.53	3.68	96%	LVS
LOS ALAMOS	2.83	2.49	114%	6.65	5.73	116%	LOA
RATON FILTER PLT	0.92	1.96	47%	5.93	4.35	136%	RRT
RED RIVER	4.98	4.07	122%	10.27	7.90	130%	RED
SANTA FE 2	1.96	2.03	97%	5.86	4.77	123%	STF
WOLF CANYON	4.88	5.33	92%	12.23	10.30	119%	CUA
<i>Northeastern Plains</i>							
CLAYTON APRT	2.01	1.36	148%	5.28	3.32	159%	CAO
CLOVIS	4.61	1.48	311%	7.97	4.38	182%	CLV
CONCHAS DAM	0.86	1.39	62%	3.02	3.43	88%	CNC
MOSQUERO 1NE	2.01	1.39	145%	4.07	3.54	115%	MSQ
PORTALES	4.42	1.39	318%	8.24	3.93	210%	POR
TUCUMCARI 4NE	3.96	1.52	261%	6.69	4.00	167%	TUC
<i>Southwestern Mountains</i>							
FORT BAYARD	3.17	2.46	129%	6.68	5.55	120%	FTB
GILA HOT SPRINGS	3.09	2.81	110%	5.87	6.78	87%	GHS
GRANTS APRT	1.44	1.48	97%	5.12	3.84	133%	GNT
QUEMADO ESTATES	1.81	2.35	77%	6.16	5.00	123%	QME
RESERVE R/S	2.67	3.04	88%	5.43	7.16	76%	RES
<i>Central Valley</i>							
ABQ WSFO APRT	1.52	1.30	117%	4.74	3.13	151%	ABQ
BOSQUE DEL APACHE	1.66	1.05	158%	5.05	2.95	171%	SAA
LOS LUNAS 3SSW	1.11	1.17	95%	3.73	3.24	115%	LLU
SOCORRO	1.35	1.26	107%	5.26	3.27	161%	SCR
<i>Central Highlands</i>							
CAPITAN	2.74	2.04	134%	6.41	4.27	150%	CAP
CLOUDCROFT	5.88	4.45	132%	12.12	8.70	139%	CLD
ESTANCIA 4N	1.52	1.69	90%	5.22	4.11	127%	EST
MOUNTAINAIR R/S	1.60	2.25	71%	5.35	5.00	107%	MTN
RUIDOSO 2NNE	5.64	3.54	159%	11.07	7.56	146%	RUP

Southeastern Plains

ARTESIA 6S	2.12	1.23	172%	3.71	3.33	111%	ART
CARLSBAD	4.76	1.21	393%	6.06	3.56	170%	CWP
FORT SUMNER	3.13	1.43	219%	5.11	3.98	128%	FSM
ROSWELL CLIMAT	2.97	1.34	222%	5.46	3.63	150%	ROW
SANTA ROSA	1.95	1.40	139%	5.15	3.68	140%	SNR
TATUM	4.02	1.40	287%	7.21	3.94	183%	TAT

Southern Desert

ANIMAS	1.97	1.70	116%	4.39	4.16	106%	ANM
DEMING	1.38	1.35	102%	3.35	3.27	102%	DEM
FAYWOOD	2.24	1.69	133%	5.21	4.44	117%	FAY
STATE U LAS CRUCES	1.53	1.09	140%	4.22	3.18	133%	STC
TRUTH OR CONSEQ	1.26	1.23	102%	3.89	4.55	85%	TRC
TULAROSA	2.09	1.44	145%	6.52	3.51	186%	TLR

2007 (January - March)**WY 2007 (Oct 06 - Mar 07)****Climate Division****% Nrml****% Nrml**

Northwest Plateau	92%	100%
Northern Mountains	96%	117%
Northeastern Plains	209%	156%
Southwestern Mountains	100%	103%
Central Valley	118%	149%
Central Highlands	124%	136%
Southeastern Plains	237%	148%
Southern Desert	123%	119%
Statewide Average	122%	123%